

U.S. Patent Application Serial No. 10/561,565
Attorney Docket No. 10191/4154
Reply to Office Action of March 20, 2009

REMARKS

Claims 23 to 31 are added, and claims 12 to 16 and 18 to 31 are therefore now pending.

In view of the following, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

Claims 12 to 22 were rejected under 35 U.S.C. § 112, first paragraph, as to enablement.

The Office Action of March 20, 2009 is the third action asserting or maintaining this 35 U.S.C. § 112 rejection. This response is the third reply in which Applicants have substantively and extensively addressed the merits of the rejection, and which are incorporated herein by reference.

To date, it is believed that no *prima facie* case has been made to support a 35 U.S.C. § 112 rejection, nor has there been any response to Applicants' specific legal and substantive reasoning -- let alone any refutation of such reasoning. It is therefore respectfully requested that the Office either specifically refute the substantive reasoning and the cited law or withdraw the enablement rejections.

While the rejections are not agreed with, claim 12 has been rewritten so as to better clarify the claimed subject matter.

As to the 35 U.S.C. § 112 enablement rejections, Applicants previously submitted a very detailed explanation as to why a *prima facie* case for an enablement rejection has not been made. In reply, the Office insufficiently states, "Applicant's representative cites a lot of court cases but fails to specifically show the support for a limitation as claimed therefore the 112 1st rejection is maintained." First, Applicants have specifically shown support for the feature in question, as is again explained below. Second, the cited court cases make plain that Applicants are under no duty to "specifically show the support for [the] limitation". This is because the Office's mere conclusory statement (namely, that "[t]here is no support in the specification for the amended/added limitation 'wherein the trigger signal will not cause the triggering of the occupant protection device unless the value in the z direction is below a threshold' in the claims") is not a proper or sufficient basis for

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satisfying the Office's burden to establish a reasonable basis to question the enablement provided for the claim.

Specifically, to make a § 112 rejection, the Office has the initial burden to establish a reasonable basis to question the enablement provided for the claim. *In re Wright*, 999 F.2d 1557, 1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993) (examiner must provide a reasonable explanation as to why the scope of protection provided by a claim is not adequately enabled by the disclosure) (emphasis added). According to *In re Bowen*, 492 F.2d 859, 862-63, 181 USPQ 48, 51 (CCPA 1974), the minimal requirement is for the examiner to *give reasons for the uncertainty of the enablement*. This standard is applicable even when there is no evidence in the record of operability without undue experimentation beyond the disclosed embodiments. See also *In re Brana*, 51 F.3d 1560, 1566, 34 USPQ2d 1436, 1441 (Fed. Cir. 1995) (citing *In re Bundy*, 642 F.2d 430, 433, 209 USPQ 48, 51 (CCPA 1981)) (discussed in MPEP § 2164.07 regarding the relationship of the enablement requirement to the utility requirement of 35 U.S.C. 101) (emphasis added).

With respect to the conclusory statement that “[t]here is no support in the specification for the amended/added limitation . . . in the claims,” it is respectfully submitted that this seems more apt for a § 112, new matter rejection. If there was indeed *no support* for the feature it should be considered new matter. However, as explained below, there is clear and specific support in the specification. Thus, to continue with an enablement rejection the Office *must* outline the reasons why a person of ordinary skill in the art would require *undue* experimentation to practice the claimed invention. Applicants are unable to substantively respond to this, as no such presentation by the Office has been made yet.

Substantively, the Remarks submitted on April 18, 2008 included the supporting sections of the specification represented below. Specifically, on page 2, lines 10 to 13, the specification specifically discloses and describes as follows: “In this way, *a high acceleration value in the x/y plane*, for example which would result in a deployment, may be corrected with a likewise occurring acceleration value in the z direction, in order to avoid an erroneous deployment, e.g., when driving off-road.” This section clearly describes and discloses that “a high acceleration value” (as indicated by “likewise occurring acceleration value”) “in the z direction,” may be used to suppress a deployment (as indicated by “correct[ing]” the system in a situation “which would result in a deployment”). Stated

succinctly, a deployment trigger will be suppressed when the z value is high, or a deployment trigger will be suppressed unless the z value is not high. It is plain that a person of ordinary skill in the art may implement -- without undue experimentation -- a device in which the occupant protection device is triggered if the acceleration value in the z direction is below a threshold.

Additionally, as explained in the Remarks of April 18, 2008, the specification at page 4, lines 23-27, specifically describes the following: “[b]ased on the z acceleration values in connection with the x and/or y acceleration values, trigger device 16 may now detect road bumps, such as a pothole, a curb, a wooden tie, a railroad track, or a ditch, possibly off-roading [i.e. incidents that have a high z acceleration value but may produce false deployment signals, as such incidents do not warrant airbag deployment], and control triggering, i.e. trigger signal 18, of at least one occupant protection device 19 as a function thereof.” Further, page 4, line 28 to page 5, line 2 specifically discloses and describes the following:

According to algorithm 17, manipulation of the deployment decision may take place, for example, in such a way that **an x acceleration signal, depending on the vehicle model, is reduced at an appropriate level of the z acceleration value.** Only the peak levels of the acceleration signal (x direction) are then preferably reduced, or the entire signal level is reduced by a predefined amount. There is also the possibility of designing algorithm 17 in such a way that **the deployment threshold for generating trigger signal 18 is elevated as a function of the acceleration in the z direction.**

Further, page 5, lines 6-8, specifically describes the following: “in consideration of the z acceleration value, deployment of the occupant protection device(s) is stopped, even though the acceleration value in the x and/or y direction would trigger a deployment under normal circumstances.” Other sections of the specification also disclose and describe the claim feature of the claimed subject matter.

Accordingly, the specification plainly describes the claimed subject matter and discloses and describes at least two such embodiments. Either of these embodiments (as well as others) could be implemented by a person of ordinary skill in the art without undue experimentation, so that the claimed subject matter satisfies the enablement requirement. It is therefore respectfully requested that the § 112 enablement rejections be withdrawn for these reasons alone.

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Also, as with *the written description requirement*, the Office bears the initial burden of presenting “evidence or reasons *why* persons skilled in the art would not recognize in an applicant’s disclosure a description of the invention defined by the claims” -- and not merely a list of terms that the Office does not understand. (See M.P.E.P. § 2163.04 (citing In re Wertheim 541 F.2d 257, 262, 265, 191 U.S.P.Q. 90, 96, 98 (C.C.P.A. 1976))) (emphasis added). In particular, the Manual of Patent Examining Procedure provides that if the Office rejects a claim, the examiner should “identify the claim limitation not described” and also provide “reasons why persons skilled in the art would not recognize the description of this limitation in the disclosure of the application.” (See id.).

It is respectfully submitted that the Final Office Action’s arguments and assertions simply do not identify why the rejected claims are not enabled by the present application (and its specification) — which it plainly is, as explained herein.

Also, as *analogously* stated by the Board in Ex parte Harvey, 3 U.S.P.Q. 2d 1626, 1627 (Bd. Pat. App. Int. 1986) (emphasis added, citations omitted):

Compliance with . . . Section 112 only requires that appellant’s application contain sufficient disclosure, expressly or inherently, to make it clear to persons skilled in the art that appellant possessed the subject matter claimed. The test for determining compliance . . . is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession of the claimed subject matter, rather than the presence or absence of literal support in the specification for the claimed language.

Likewise, as stated by the Board in Ex parte Sorenson, 3 U.S.P.Q. 2d 1462, 1463 (Bd. Pat. App. Int. 1987) (emphasis added):

[W]e are mindful that appellant’s specification need not describe the claimed invention in *ipsis verbis*. . . . *The test is whether the originally filed specification disclosure reasonably conveys to a person having ordinary skill that applicant had possession of the subject matter later claimed.* . . . Moreover, the Examiner has the initial burden of presenting evidence or reasons why persons skilled in the art would not recognize in appellant’s specification disclosure a description of the invention defined by the claims.

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In particular, the Sorenson Board, noting that the examiner only essentially stated that the claim expressions at issue did not “appear in the original disclosure” and that the claim expressions were therefore “not adequately supported by the few specific compounds in the specification”, found that the examiner had not met his initial burden of “presenting evidence why a person having ordinary skill in the art would not recognize in appellant’s specification a description of the invention defined by the claims” — and that the “only reasoning presented” that the Board could discern was an “example of *ipse dixit* reasoning, resting on a bare assertion by the Examiner”.

In view of all of the foregoing, it is respectfully submitted that the Office Action’s arguments and assertions do not establish a prima facie case with respect to the present application.

Claims 12 to 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,167,335 (“*Ide*”) in view of U.S. Patent No. 6,137,335 (“*Khairallah*”).

To reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Also, as clearly indicated by the Supreme Court in *KSR*, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *See KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). In this regard, the Supreme Court further noted that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.*, at 1396. Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Still further, the prior art must disclose or suggest each claim feature and it should also provide a motivation or suggestion for combining the features in the manner contemplated by the claim. (*See Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 934 (Fed. Cir. 1990), *cert. denied*, 111 S. Ct. 296 (1990); *In re Bond*, 910 F.2d 831, 834 (Fed. Cir. 1990)). As explained herein, it is respectfully submitted that the cited references, whether considered alone or in combination, do not disclose or suggest all of the features of the claims.

Claim 12 provides the feature in which the triggering of the occupant protection device unless the value in the z direction is below a threshold.” Aside from the § 112 rejection of this feature discussed above, the text at col. 4, lines 64-67, of the Khairallah reference *does not* disclose the feature in which “the trigger signal will not cause the triggering of the occupant protection device unless the value in the z direction is below a threshold”, as provided for in the context of the presently claimed subject matter. The cited section is further discussed in col. 4, lines 50 to 53, which states, “[T]he third acceleration sensor 54 senses acceleration along the vehicle vertical axis 60 and the controller 38 makes a determination as to whether the vertical acceleration exceeds a threshold value.”

Further, the cited elements 204 and 212 of Fig. 3 are discussed in col. 7, line 38 to col. 8, line 50. Here, the Z_SAFE states of “low” and “high” clearly indicate the logic symbol states of “off” and “on”, respectively. “At step 204, a variable Z_SAFE, which represents a safing determination output, is set equal to LOW. A low value of the variable Z_SAFE indicates that the process has determined that a vehicle crash condition is not occurring. In contrast, the variable Z_SAFE is set HIGH upon a determination that a vehicle crash condition is occurring.” (Khairallah at col. 7, lines 40 to 46).

Additionally, “[i]f the determination at step 210 (FIG. 3) is affirmative (i.e., the moving average of the Z-axis acceleration *exceeds* the predetermined threshold value), the process 200 proceeds from step 210 to step 212... At step 212, the variable Z_SAFE is set HIGH ...” *Id.* at col. 7, lines 57 to 67 (emphasis added). The Khairallah reference simply does not disclose that *the occupant protection device is triggered if the acceleration value in the z direction is below a threshold*.

These facts were previously presented to the Office in the Remarks of December 21, 2007 and April 18, 2008, but to date the Office has not even addressed these facts. It is

respectfully requested that the rejections be withdrawn if the Office cannot and does not specifically refute these facts.

Claim 12 provides the additional feature in which *a level of the first signal is reduced as a function of at least one of the second signal and a vehicle model.* The Ide reference does not disclose or suggest this feature. In Ide, the text at col. 5, line 57 to col. 6, line 24 is cited along with Fig. 16. However, when combining references to form an obviousness rejection, the rejection of a particular feature cannot ignore the claimed meaning of a term in that feature. Here, it is claimed that “a level of the first signal is reduced as a function of at least one of the second signal and a vehicle model.” Here, *the* first signal and *the* second signal have a specific meaning, i.e. “generating a corresponding first signal for indicating a necessity for triggering the occupant protection device,” and “detecting an acceleration value in a z direction while simultaneously generating a corresponding second signal.”

To disclose the single feature of “a level of the first signal is reduced as a function of at least one of the second signal and a vehicle model,” it is insufficient to provide a reference that merely refers to a signal reduced as a function of another signal. The recited signals have a specific meaning, and Ide does not disclose “a level of the first [occupant protection device triggering] signal is reduced as a function of at least one of the second [vertical axis acceleration] signal and a vehicle model.”

While the rejections may not be agreed with, to facilitate matters, claims 12 and 21 have been rewritten in this regard to make this plain.

Accordingly, claim 12, as presented, is allowable, as are its dependent claims.

Claim 21, as presented, includes features similar to those of claim 12, and is therefore allowable for essentially the same reasons as claim 12, as presented, as is its dependent claim 22.

As further regards all of the obviousness rejections, any Official Notice is respectfully traversed to the extent that it is maintained and it is requested that the Examiner provide specific evidence to establish those assertions and/or contentions that may be supported by the Official Notices under 37 C.F.R. § 1.104(d)(2) or otherwise. In particular, it is respectfully requested that the Examiner provide an affidavit and/or that the Examiner provide published information concerning these assertions. This is because the § 103

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rejections are apparently being based on assertions that draw on facts within the personal knowledge of the Examiner, since no support was provided for these otherwise conclusory and unsupported assertions. (See also MPEP § 2144.03).

Accordingly, withdrawal of the obviousness rejections is respectfully requested.

Claims 23 to 31 do not add new matter and are supported by the present application, including the specification. Claims 23 to 26 depend from claim 21, and are therefore allowable for the same reasons. Claims 27 to 30 depend from claim 12, and are therefore allowable for the same reasons. Claim 31 includes features like those of claims 12 and 27 and is therefore allowable for essentially the same reasons.

In summary, claims 12 to 16 and 18 to 31 are allowable.

CONCLUSION

In view of the foregoing, claims 12 to 16 and 18 to 31 are allowable. It is therefore respectfully requested that the rejections (and any objections) be withdrawn. Prompt reconsideration and allowance of the present application are therefore respectfully requested.

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